



10-Day Rainfall & Agromet Bulletin

Department of Meteorological Services



Period: 1 – 10 March 2008

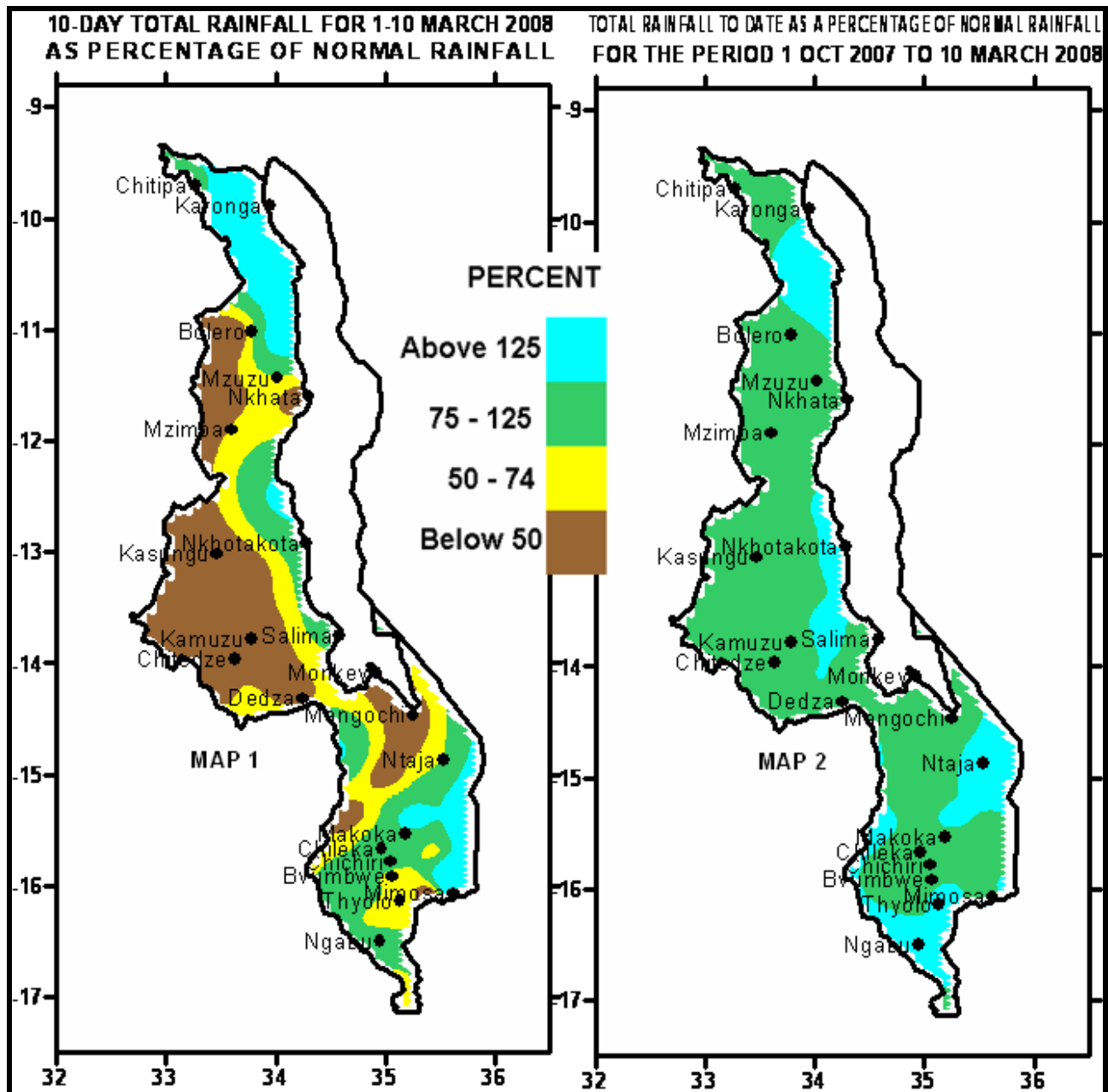
Season: 2007/2008

Issue No.16

Release date: 14 March 2008

HIGHLIGHTS

- Amount and distribution of rains further improved over Malawi ...
- Maize crop ranges from flowering to maturity and drying stages ...
- More rains expected across Malawi during 11 – 20 March, 2008...



1. WEATHER SUMMARY

1.1 RAINFALL SITUATION

During the first ten days of March 2008, Tropical Cyclone Jokwe that developed over the Mozambique Channel and made a land fall over northern Mozambique caused substantial rainfall amounts over southern Malawi. At the same time it attracted moist and unstable Congo air mass into northern and central areas of the country causing substantial falls over these areas as well. This improved rainfall amounts and distribution over northern and southern areas (green and light blue colours on Map 1). However, the western parts of central and northern areas of Malawi remained relatively dry (brown colours on map 1). Few areas recorded a total rainfall of more than 100 mm during the period and these are Lujeri (138 mm) in the south; Dwangwa (205 mm), Lifuwu (152 mm), Nkhande (128 mm) and Salima (109 mm) in the centre; and Baka (380 mm), Karonga (286 mm) and Vinthukutu (212 mm) in the north. See Table 1.

Cumulative rainfall performance from October 2007 through March 10, 2008 indicates that generally normal to above-normal (green and light blue colours on Map 2) rainfall amounts have been received over Malawi.

1.2 MEAN AIR TEMPERATURE

During the period under review, average daily maximum temperatures were generally warm to hot. Higher average daily maximum temperatures were confined to Shire Valley and Lakeshore areas. Mean maximum temperatures for the period ranged from 23.0°C at Dedza to 31.7°C at Ngabu. The highest absolute maximum temperature was reported at Ngabu (34.3°C). On the other hand, minimum temperatures were cool to mild with mean minimum temperatures ranging from 14.9°C to 23.7°C at Dedza and Ngabu, respectively. The lowest minimum temperature was registered at Dedza (13.8°C). See Table 2.

1.3 MEAN DAILY WIND SPEEDS

At a height of two meters above the ground, the average daily wind speeds were generally light. The highest speed was reported at Chileka (2.4 m/s or 8.7 Km/hr) while the lowest wind speed was recorded at Chitedze (0.6m/s or 2.2 Km/hr).

See Table 2.

1.4 MEAN RELATIVE HUMIDITY

Relative humidity values generally picked up across the country during the period under study compared to the previous dekad. Average daily relative humidity values ranged from 67% at Dedza to 85% at Bvumbwe.

2. AGROMETEOROLOGICAL ASSESSMENT

Substantial rainfall amounts continued being experienced in most parts of the country during the first ten days of March 2008. This is contributing positively to the development of the maize crop that is at critical flowering and grain filling stages in parts of the central and northern regions. These rains also continue to improve water resources and support growth and development of tuber crops.

The general crop stand in the fields was reported in good condition with Maize crop ranging from flowering to maturity and drying stages. Early planted hybrid maize particularly in the south was at drying stage where more sunshine hours are required. This crop is being threatened by the resumption of rains.

So far due to incidences of soil water logging conditions, leaching of nutrients, floods and dry spells, the overall national maize production is expected to be less than last season.

3. PROSPECTS OF 2007/08 SEASON

Current dynamical and statistical climate models predict that La Nina conditions will persist during the second half of the season (January to March 2008). So far above average rainfall continued in January with floods over most parts of Malawi while most of the south experienced a dry spell during the first twenty days or so of February before the rains resumed towards the end of the month. More rains are anticipated in March into April.

4. OUTLOOK FOR 11 – 20 March 2008

Meanwhile, combined effects of Congo air mass and the establishment of the ITCZ over the southern parts of the country are expected to bring more rains into Malawi. Therefore both amounts and spatial distribution of rainfall are expected to improve during the second dekad of March 2008.

**TABLE 1: DEKADAL RAINFALL FOR SELECTED STATIONS FOR
DEKAD 1 OF MARCH 2008: PERIOD 1 - 10**

STATION NAME	DEKADAL TOTAL RAINFALL	DEKADAL NORMAL	DEKADAL TOTAL AS % NORMAL	TOTAL TO DATE	NORMAL TO DATE	TOTAL TODATE AS % NORMAL	RAINY DAYS >0.3 mm
SOUTHERN REGION	mm	mm	NORMAL	mm	mm	NORMAL	>0.3 mm
Balaka Township	17.0	62.8	27	725.6	720.4	101	0
Bvumbwe Met.	22.4	73.2	31	935.7	874.1	107	4
Chichiri Met.	91.0	76.8	118	936.5	887.1	106	4
Chikwawa Boma	57.3	47	122	723.1	614.9	118	4
Chileka Airport	63.2	53.6	118	829.5	736.7	113	6
Chingale Agric	82.8	57.7	144	1031.1	801.8	129	4
Chizunga Factory	70.0	89.1	79	1330.0	1047.3	127	4
Kasinthula Res. Stn.	54.6	87.2	63	927.5	616.4	150	3
Lujeri Tea Estate	137.7	14.8	930	2214.4	1466.3	151	8
Mangochi Met.	17.7	58.3	30	791.0	704	112	3
Mimosa Met.	98.2	112.2	88	909.1	1111	82	8
Monkey Bay Met.	20.5	60.6	34	1034.9	851.8	121	4
Naminjiwa Agric	44.1	50.1	88	799.5	815.7	98	5
Nchalo Sucoma	24.0	57	42	721.5	588.6	123	2
Neno Agric	18.7	83.2	22	1262.6	971.2	130	3
Ngabu Met.	54.7	52.1	105	956.0	645	148	4
Nsanje Boma	40.8	68.7	59	871.0	723.9	120	7
Ntaja Met.	42.7	55.8	77	1039.9	740.9	140	2
Thyolo Met	62.7	87.7	71	1131.9	915.8	124	7
CENTRAL REGION							
Bunda College	33.9	60.7	56	831.0	743.5	112	6
Chitedze Met.	7.4	59.1	13	852.0	768.6	111	3
Dedza Met	27.5	63.5	43	933.1	806.4	116	5
Dowa Agric	21.7	61.6	35	960.4	740.9	130	4
Dwangwa Sugar Corp.	205.4	128.4	160	1237.5	928.7	133	8
K.I.A Met	29.4	72.4	41	751.2	727.4	103	3
Lifuwu	151.5	119	127	1253.2	1050.7	119	7
Lisasadzi	20.9	52.9	40	544.3	719.1	76	2
Malomo Agric	23.6	84.3	28	846.9	714.6	119	4
Madisi Agric	25.0	59.5	42	638.5	727	88	2
Mchinji Boma	33.6	66.8	50	978.9	862.4	114	5
Mkanda Met	16.8	61.1	27	885.1	774.9	114	2
Mwimba Research	16.2	100.9	16	615.2	824	75	1
Nathenje Agric	18.5	63.9	29	947.3	743.6	127	3
Ntcheu - Nkhande	128.4	79.9	161	1197.6	921.5	130	4
Ntchisi Boma	42.9	53.5	80	919.6	733.2	125	5
Salima Met	109.2	111.3	98	1223.4	1023	120	5
NORTHERN REGION							
Baka Res. Stn.	380.0	115.8	328	893.7	731.3	122	9
Bolero Met	22.4	56.2	40	628.5	627.7	100	5
Bwengu Agric.	68.4	41.2	166	704.2	676.6	104	3
Chitipa Met	52.6	68.2	77	706.3	799.4	88	8
Karonga Met.	285.7	76.3	374	817.7	662.6	123	7
Mzimba Met	38.3	73.9	52	649.0	750.4	86	8
Mzuzu Met.	61.4	83.8	73	992.5	830.7	119	8
NkhataBay Met.	23.7	92.5	26	813.9	1046.5	78	6
Vinthukutu Agric	211.6	83.6	253	1643.9	736.9	223	7

**TABLE 2: AGROMETEOROLOGICAL PARAMETERS
FOR DEKAD 1 OF MARCH 2008**

STATION	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (°C)	ABS MIN (°C)	WIND SPEED m/s	RH %
BOLERO	27.8	17.2	29.0	15.5	N/A	77
BVUMBWE	25.6	16.6	26.5	16.0	1.9	85
CHICHIRI	26.0	17.1	27.4	15.9	0.8	79
CHILEKA	27.6	18.9	29.7	17.8	2.4	79
CHITEDZE	26.4	17.0	27.4	16.1	0.6	76
CHITIPA	25.8	16.5	27.1	15.8	2.0	74
DEDZA	23.0	14.9	24.4	13.8	1.4	67
K.I.A.	25.2	16.4	26.7	15.5	1.6	81
KARONGA	29.0	20.8	29.8	19.2	1.1	79
MANGOCHI	30.5	21.2	31.3	20.5	1.3	76
MIMOSA	29.9	18.5	30.5	17.0	1.0	82
MONKEY BAY	29.9	21.9	30.7	20.7	1.5	71
MZIMBA	26.0	16.9	27.5	14.8	0.9	74
MZUZU	24.8	16.9	27.2	15.6	1.7	83
NGABU	31.7	23.7	34.3	22.3	1.7	69
NKHATA BAY	29.9	20.2	30.8	19.4	0.9	82
NTAJA	28.7	19.8	29.0	19.0	1.3	78
SALIMA	29.3	22.0	30.0	20.4	2.3	77

Glossary of some terms on this table

- RH = Relative Humidity
- Mean Temperature of the day =(Max of the day + Min of the same day)/2
- ABS Max (Min) = Absolute Maximum (minimum) is the highest (lowest) of maximum (minimum) temperatures observed for a given number of days (calendar month) of a specified period of months (years).

To convert Meters Per Second (mps) to Kilometers per hour (Km/hr) = mpsx3.6